Brazil Macro | July 2022

INFLATION

DANIEL KARP
daniel.karp@santander.com.br
+55 11 3553-9828

Forecasting accountability

01

Forecast accountability: short-term inflation lower, medium-term higher

- Tax cuts reducing inflation for fuels, electrical energy and communication
- But the income-effect generated by the tax cut, alongside new round of income aid measures generate a support for demand, putting upward pressure in other sectors and compensating part of the direct downward effect
- Moreover, for 2023 part of the tax cuts will be reversed

	2022		
	old	new	Δ bps
IPCA	9.5	7.9	-160
Free prices	9.5	10.5	72
Food-at-home	13.1	15.0	30
Industrial goods	9.6	10.5	22
Tradables	9.9	10.8	18
Non-Tradables	7.3	8.4	3
Services	7.9	8.5	20
Food-service	8.2	9.2	6
Airline tickets	27.0	53.5	14
Economic activity	9.2	6.7	-24
Education	6.9	7.4	3
Inertial	6.8	8.5	13
Salaries	6.0	7.5	8
Administered prices	9.6	0.9	-231
Gasoline	9.6	-6.5	-110
Energy	1.3	-20.4	-91
Health insurance	7.9	6.9	-3
Bus fares	4.3	3.7	-1
Cores	9.2	9.2	4

Sources: Santander

	2023		
	old	new	Δ bps
IPCA	4.5	5.7	114
Free prices	4.0	5.0	72
Food-at-home	3.5	3.5	0
Industrial goods	4.1	4.1	-1
Tradables	4.5	4.5	0
Non-Tradables	1.0	1.0	0
Services	6.3	6.3	-1
Food-service	6.5	6.5	0
Airline tickets	5.0	5.0	0
Economic activity	6.0	6.0	0
Education	8.0	8.0	0
Inertial	6.0	6.0	0
Salaries	5.5	5.5	0
Administered prices	6.0	7.6	43
Gasoline	-5.0	5.0	68
Energy	12.0	14.0	8
Health insurance	12.0	14.0	7
Bus fares	12.0	14.0	3
Cores	5.0	6.5	150

Sources: Santander

Detailing the fiscal measures impacts

2022		2023	
Items (measures)	Impact (bps)	Items (measures)	Impact (bps)
Gasoline (ICMS)	-61	Gasoline (Pis/Cofins)	49
Gasoline (Pis/Cofins)	-49	Higher expectations (fiscal stimulus)	30
Electricity (ICMS)	-42	Lower inertia	-40
Electricity (TUSD/TUST)	0		
Electricity ("tax credit")	-20		
Telecom (ICMS)	-22		
Income-effect (fiscal stimulus)	33		
IPCA 2022 (prev. 9.5)	**7.9**	**IPCA 2023 (prev. 5.3)**	**5.7**

Sources: Santander

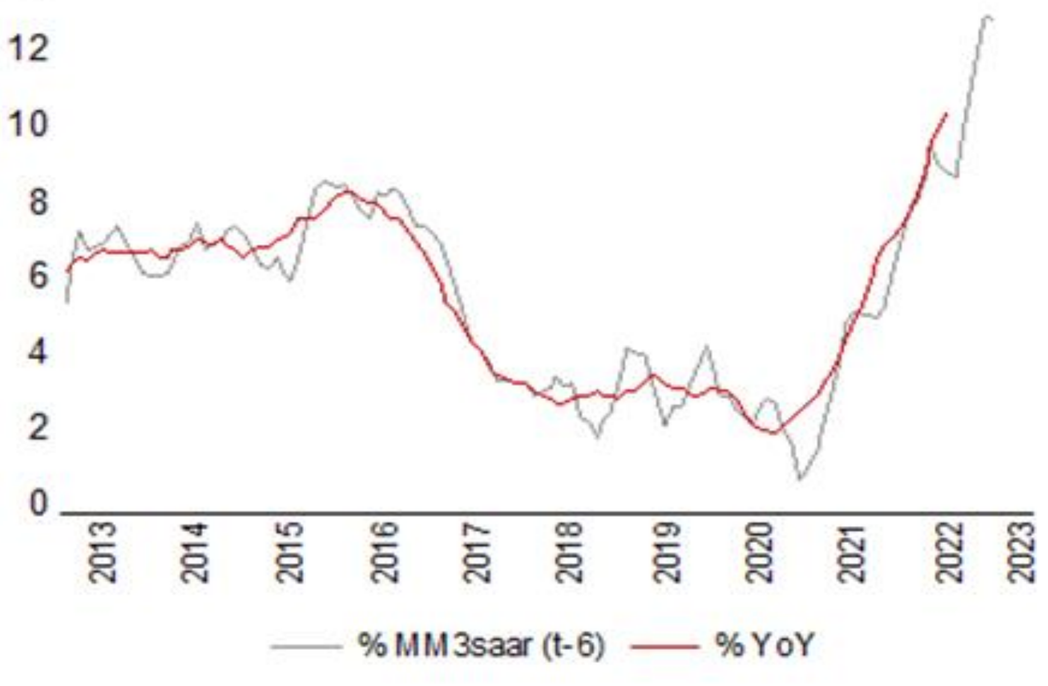
Picture: inflation still in bad shape

02

Inflation: still in bad shape

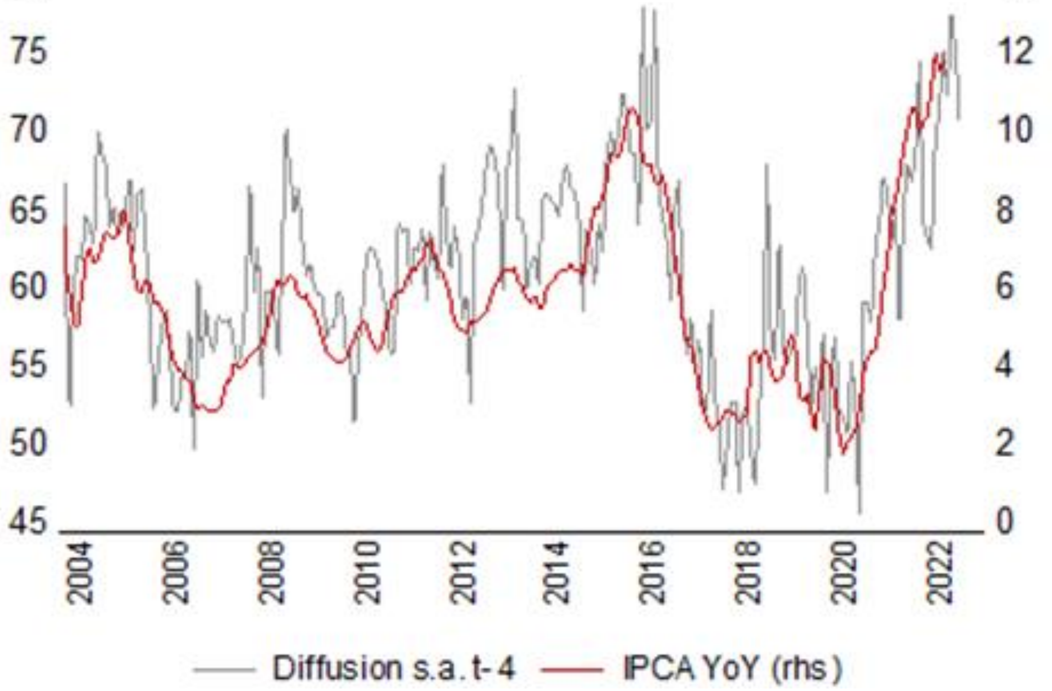
- Although core gauges apparently stopped accelerating and the diffusion index saw a small relief at the margin, both remain at very high levels
- The average of the main core measures is still running around 13% 3MMA-saar and diffusion is still at 71%

Core inflation reaching new highs



Sources: IBGE, BCB, Santander

Diffusion index close to the highs



Sources: IBGE, BCB, Santander

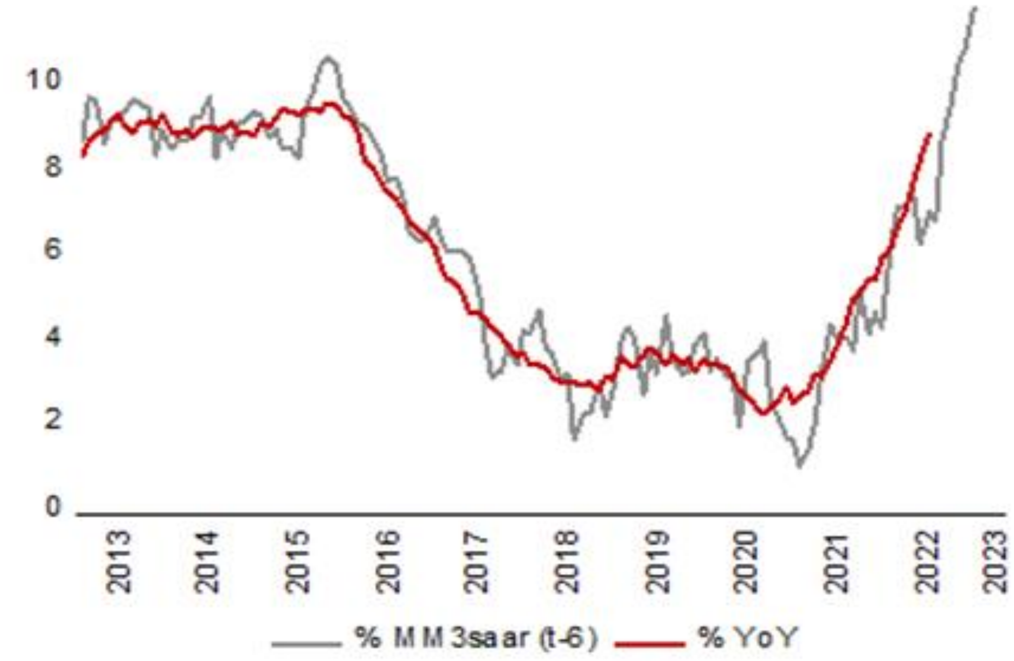
Services inflation is picking up sharply

- Both headline and core services are running above 2015-2016 levels and still accelerating at the margin

Headline services inflation

Sources: IBGE, BCB, Santander

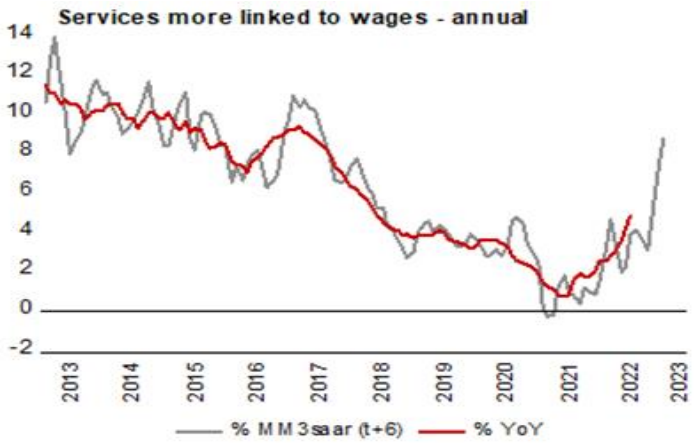
Core services inflation

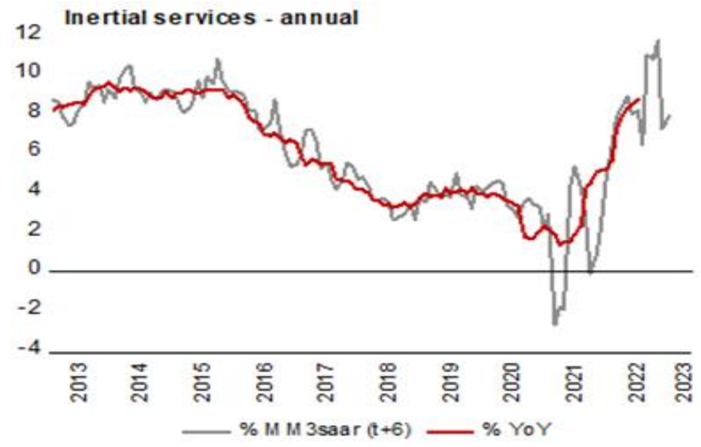


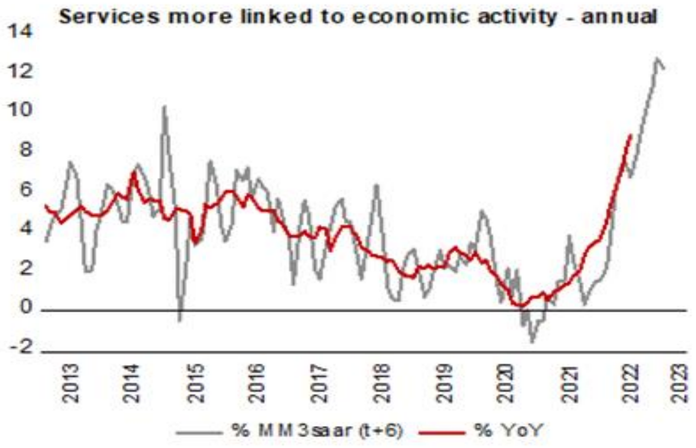
Sources: IBGE, BCB, Santander

Inflation is broadly spread in the services sector

- We are seeing both services linked to economic activity, to the job market (wages), the more inertial ones (indexed to past inflation) and even the volatile services accelerating at the margin

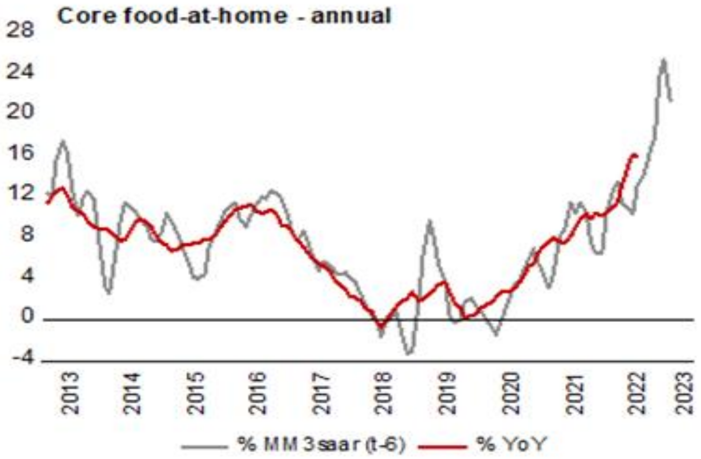






Sources: IBGE, BCB, Santander

Industrials and food inflation: first signs of relief, but still high



Sources: IBGE, BCB, Santander

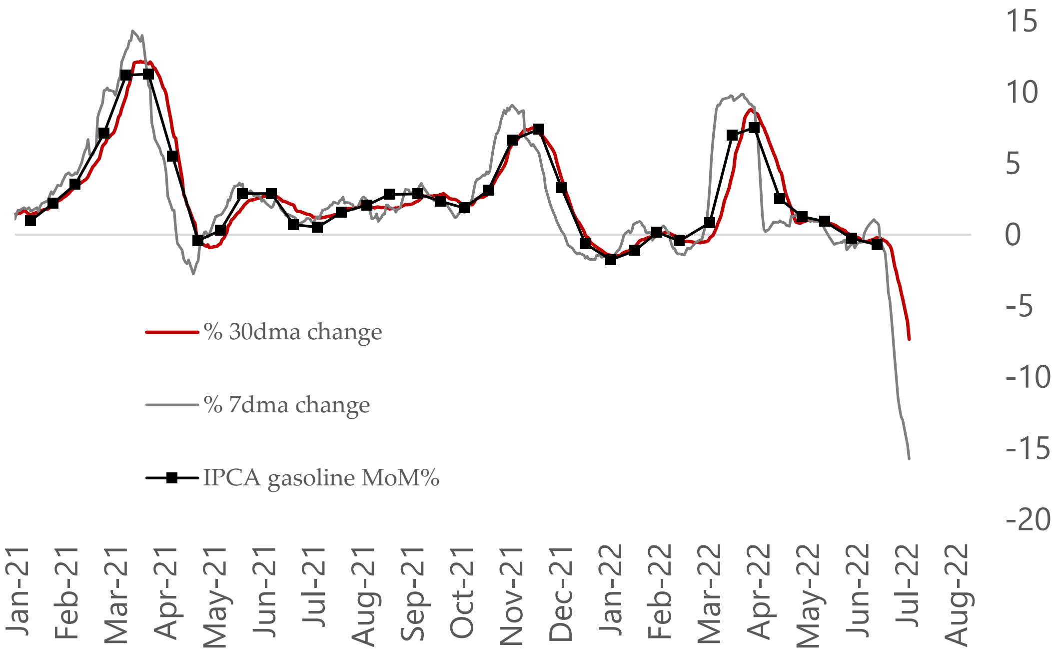
The positive highlight is regulated prices

- Regulated prices are seeing a considerable relief because of the tax cut in fuels, electrical energy and telecom

Regulated prices inflation

Sources: IBGE, BCB, Santander

Gasoline high-frequency price survey



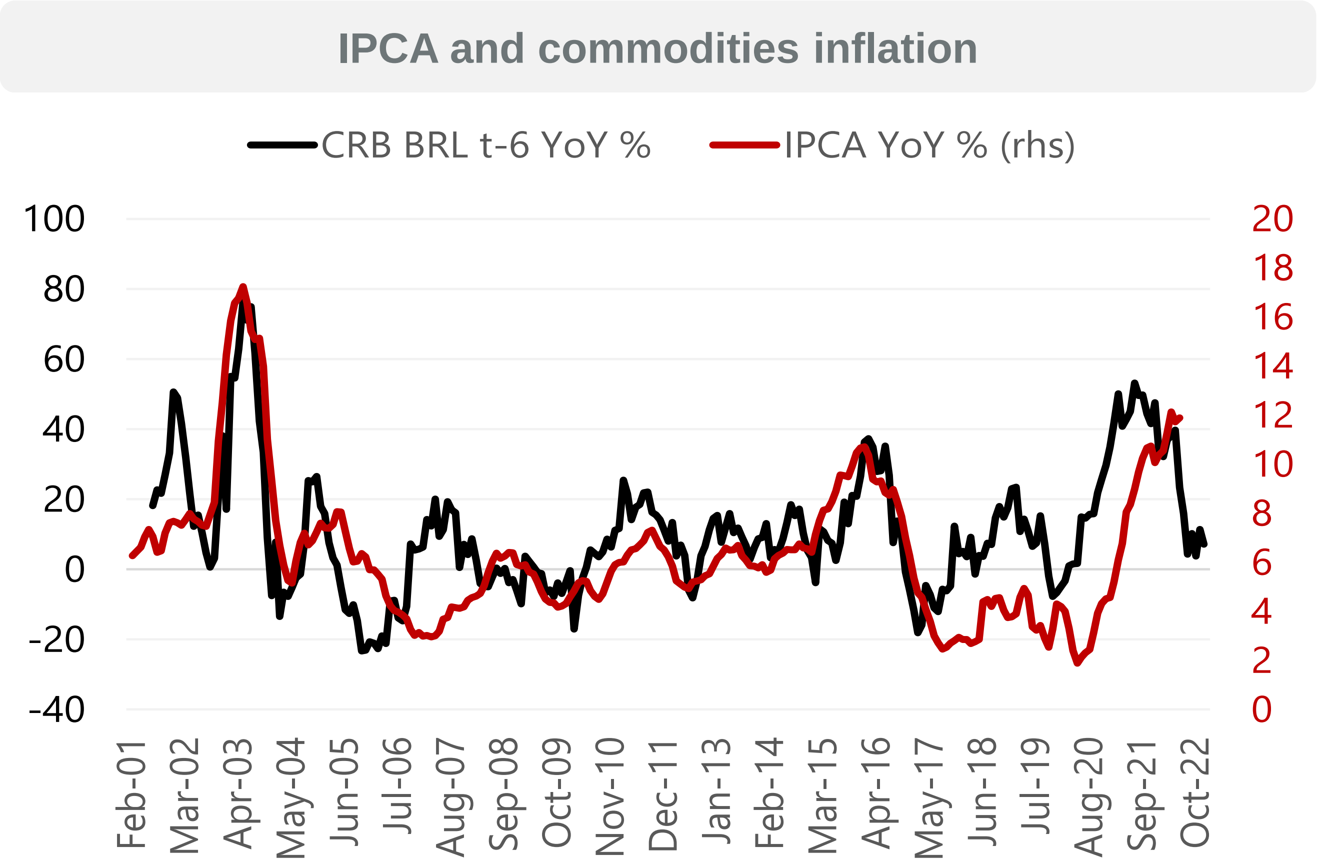
Sources: IBGE, Santander

Looking ahead: challenging outlook, but the worst seems behind us now

03

What to expect from now on? A relief from “imported inflation”

- Even with USDBRL coming back to above 5, commodities’ prices in BRL terms still point to a disinflation ahead

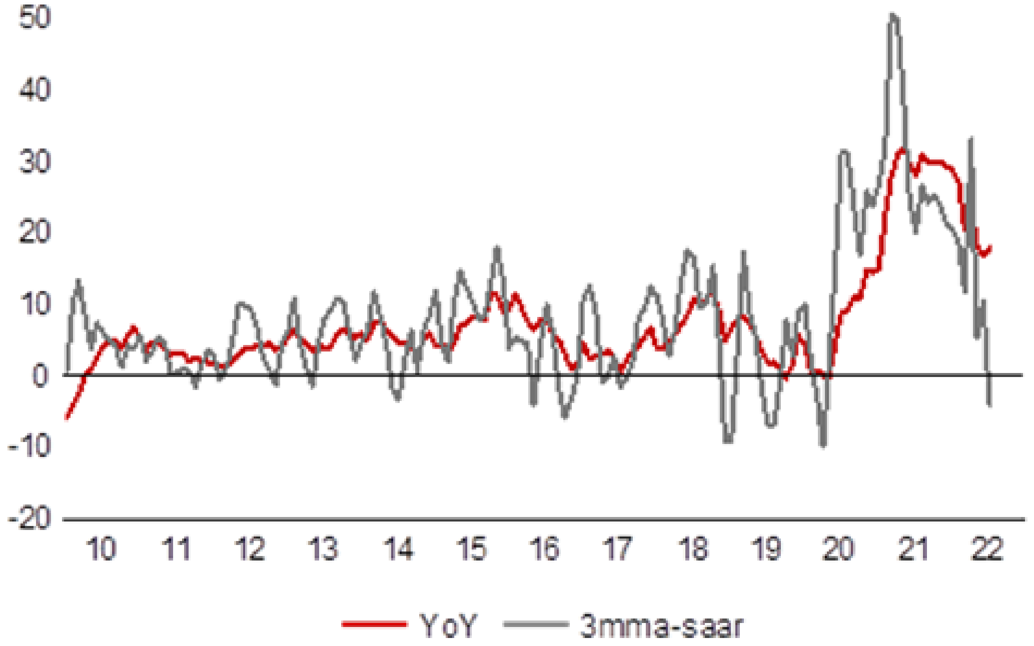


Sources: IBGE, Bloomberg, Santander

Some preliminary signs of lower pressure on the industrial side

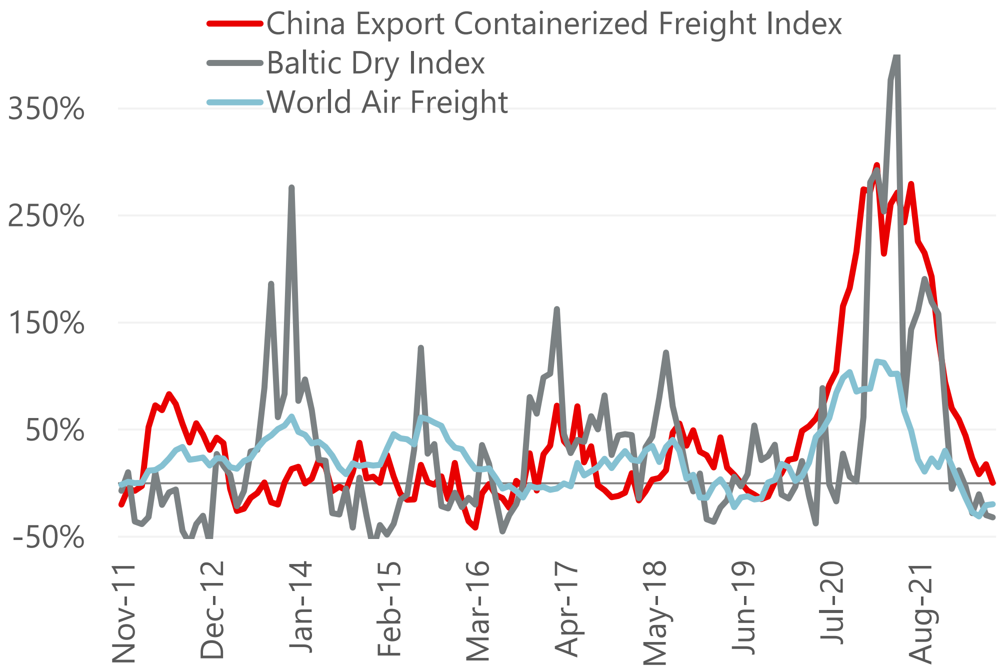
- Industrial goods at the wholesale/producer level are already decelerating, which should reach the consumer level soon
- Anecdotal evidences that at least part of the supply shocks are fading: freight costs, for example

Core-PPI-Industrial



Sources: FGV, Santander

Freight Costs % YoY



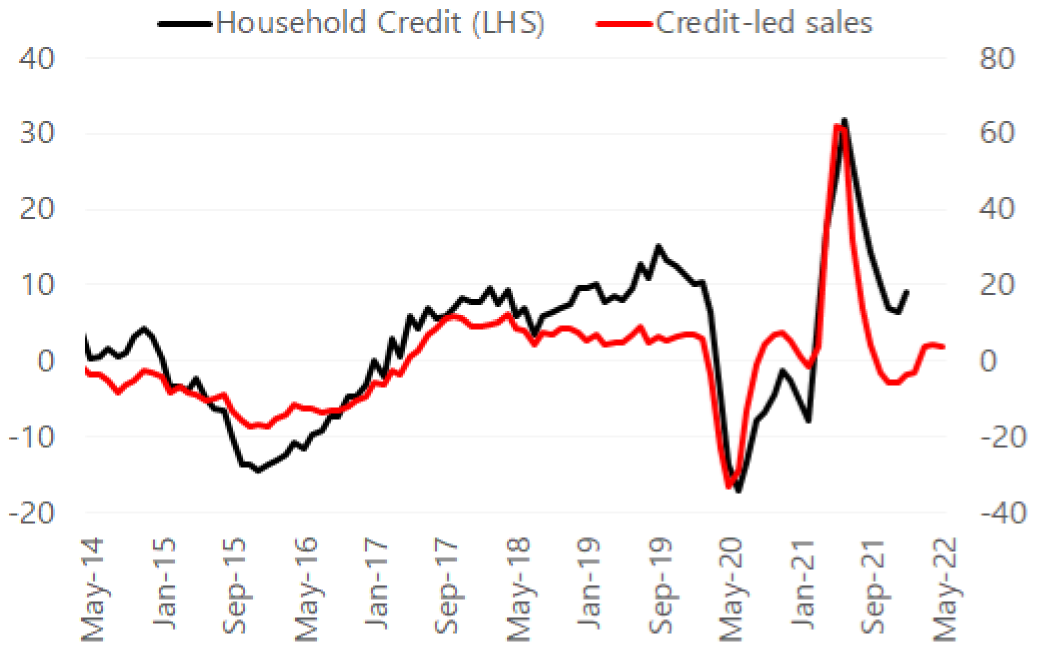
Sources: Bloomberg

Santander

What to expect from now on? Less pressure on the demand side

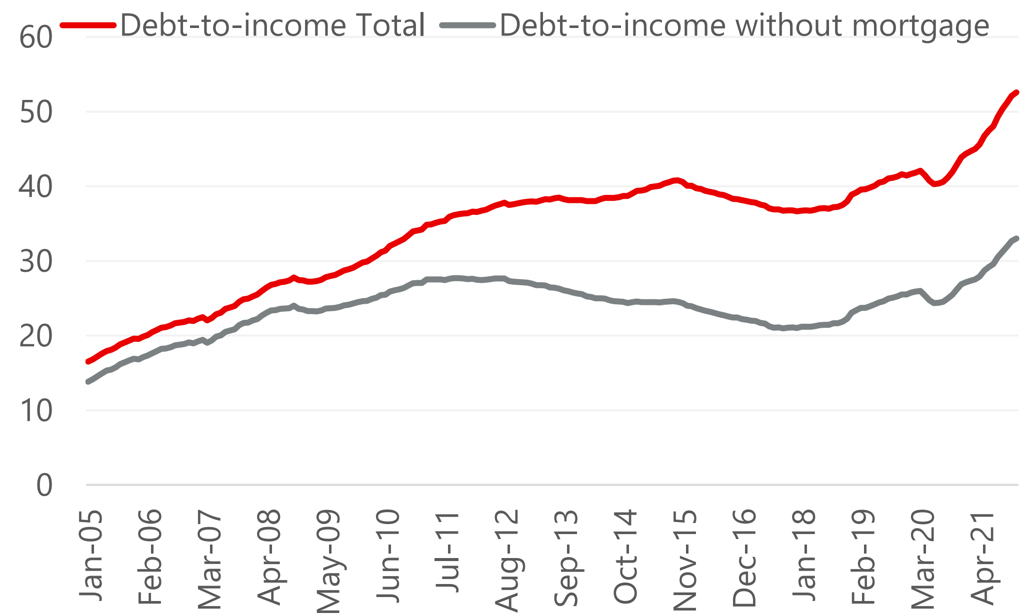
- For households, new loans are slowing down and debt is at the highest levels (and still rising)
- At some point, this should help to reduce inflation

Slowing credit reducing retail sales



Sources: IBGE, BCB,Santander

Household debt-to-income %

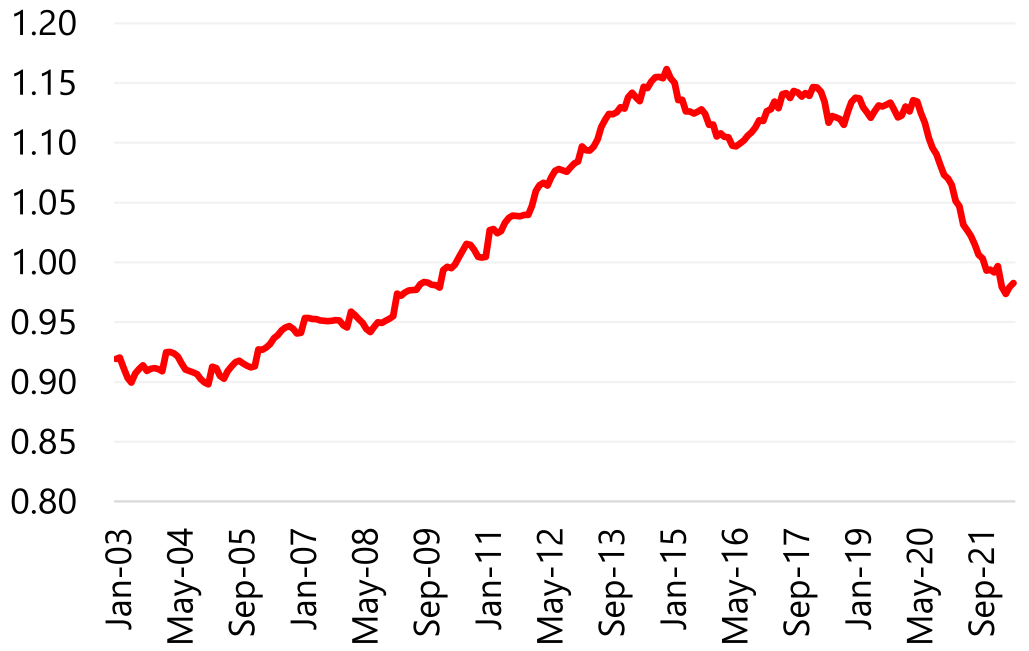


Sources: BCB, Santander

Services: a relative-price adjustment, but then a cool down on the back of rising unemployment

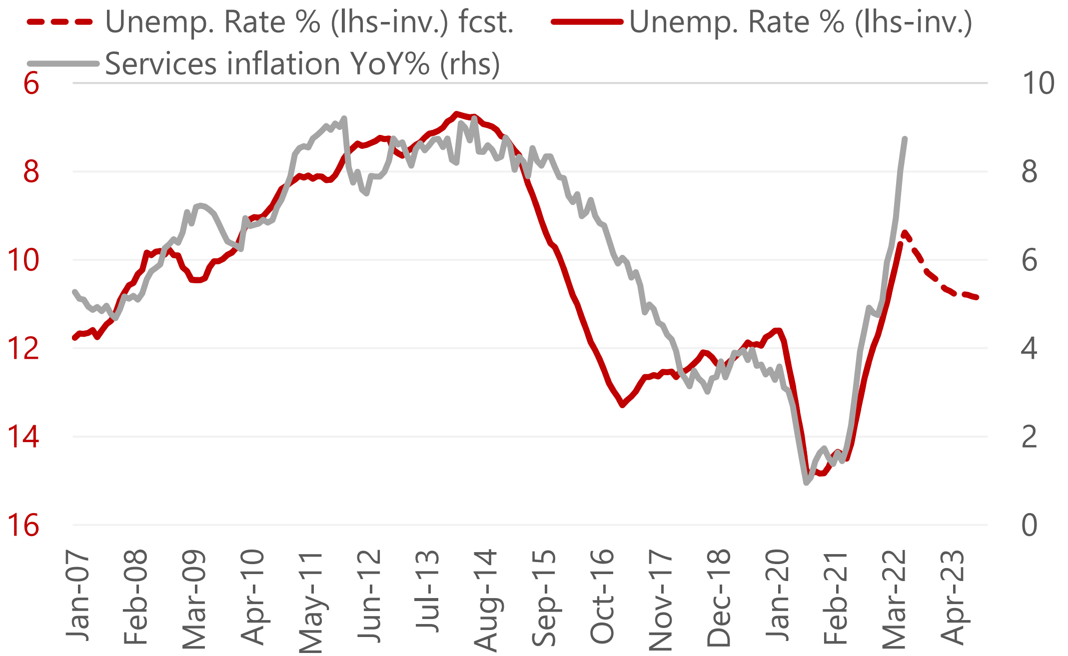
- Services are now benefiting from the end of social distancing measures and enjoying a relative-price adjustment (after lagging all the shocks in other sectors)
- Looking ahead, we expect the economy to cool down (monetary policy acting), rising unemployment and helping services inflation to cool down

Relative price: IPCA Services/IPCA Ex-Services



Sources: IBGE, Santander

We expect unemployment rate to rise, which should take out services inflation steam

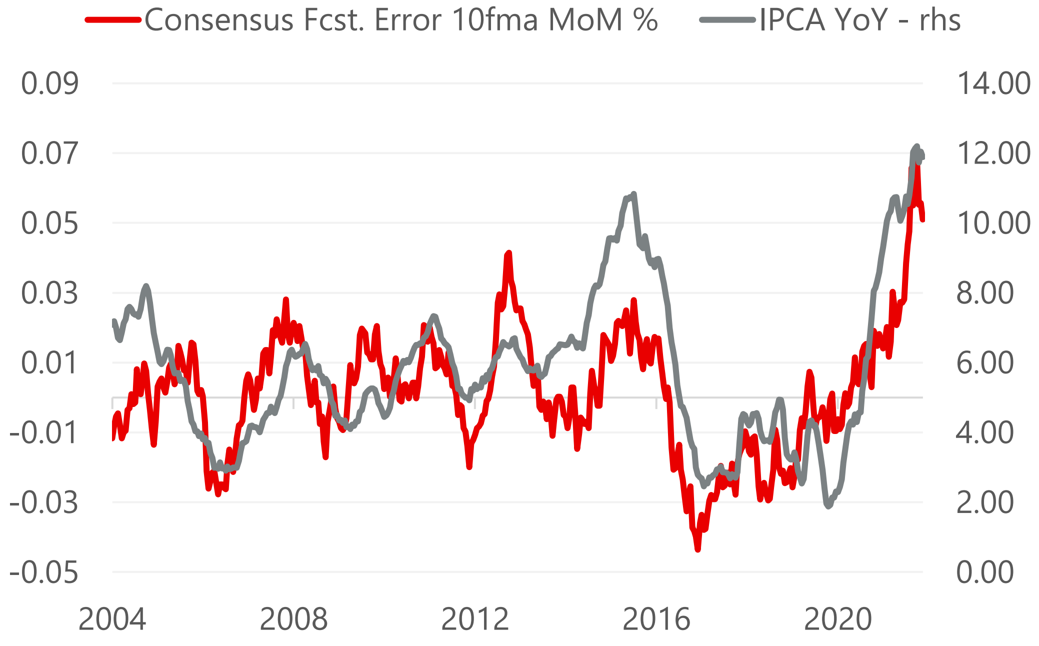


Sources: IBGE, Santander

Inflation expectations: the end of short-term surprises?

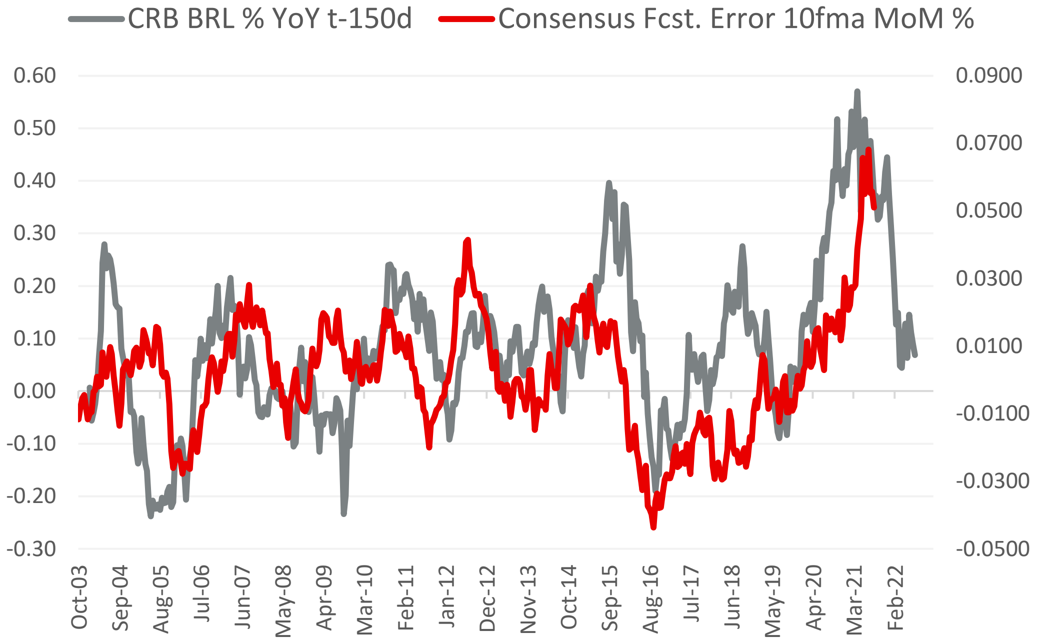
- Montlhy inflation surprises are highly correlated to the state of inflation: if inflation is accelerating, upward surprises follow. As IPCA has peaked, inflation surprises should start to reduce
- Moreover, usually inflation surprises are driven by volatile prices, particularly commodities and the exchance rate, and those two prices are pointing to a reduction of inflation surprises

Inflation surprises are highly correlated to the state of inflation



Sources: IBGE, Santander

CRB in BRL is pointing to a deceleration of inflation surprises

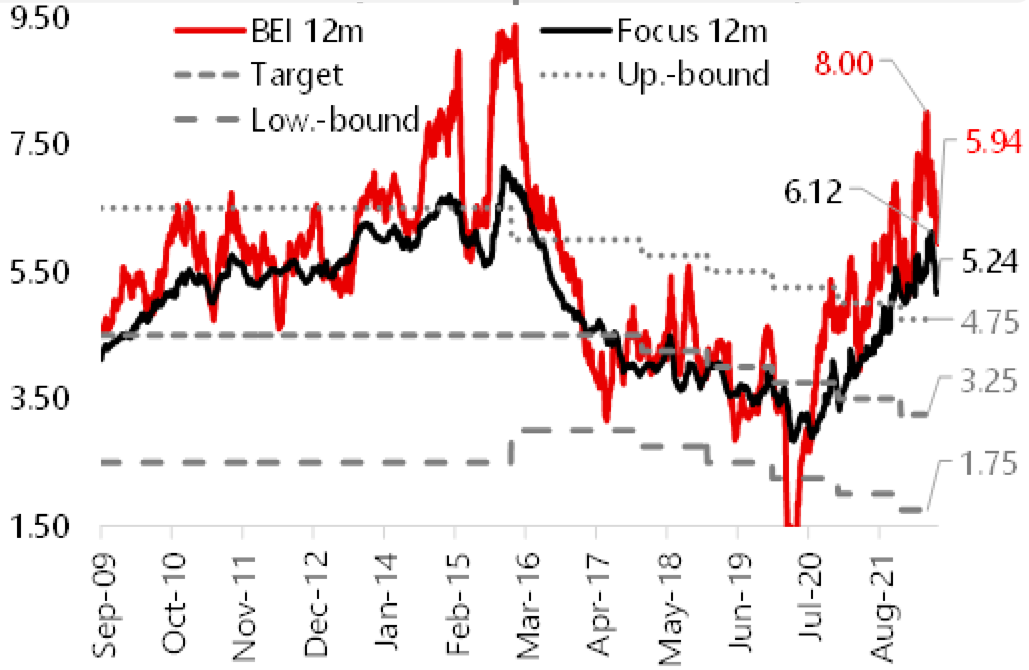


Sources: IBGE, Santander

Inflation expectations: a relief in medium-term expectations?

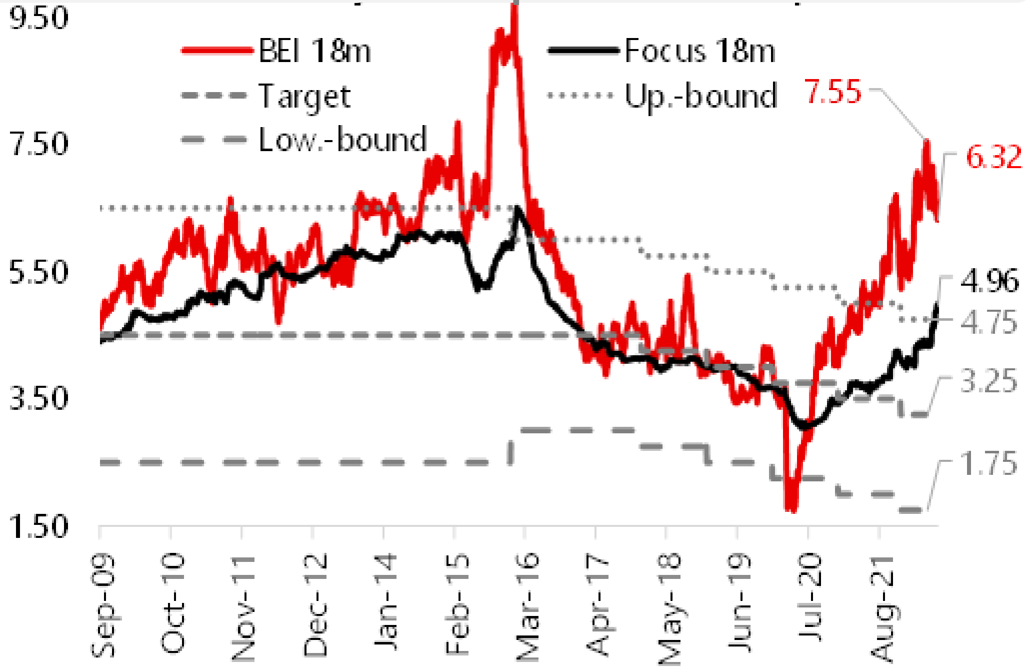
- 12-month expectations started to fall after the announcement of the tax cuts
- For 18-month ahead (the BCB horizon), the period which also captures the come back of part of the taxes, the signals are still mixed (break-even inflation falling, but Focus survey still rising), but there also signs of some preliminary relief
- If inflation surprises start to reduce it could consolidate the relief in the upward adjustments of medium-term expectations (services inflation/short-term strong demand and a possible change of view regarding the fiscal consolidation are risks for this outlook)

12-month ahead survey- and market base inflation expectations



Sources: IBGE, Santander

18-month ahead survey- and market base inflation expectations

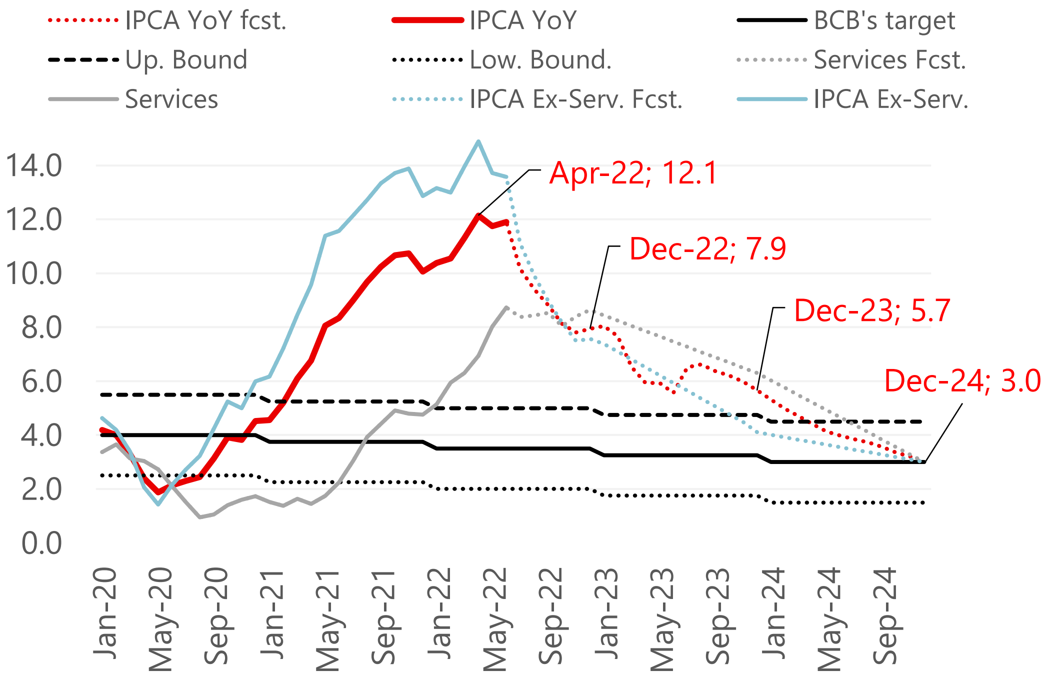


Sources: IBGE, Santander

Inflation outlook remains challenging, but it could be stopping getting worse

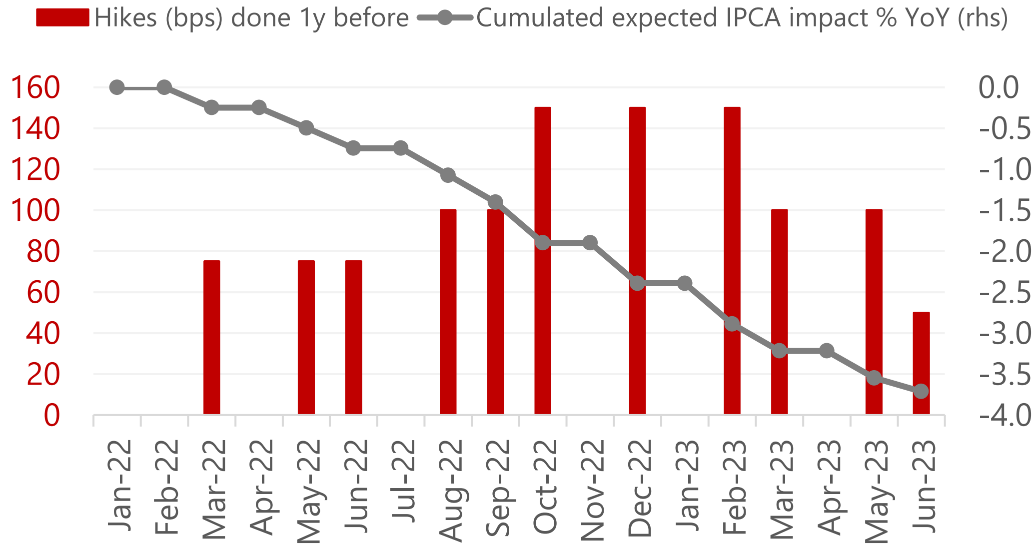
- We believe the bulk of the monetary policy tightening is about to kick-in more intensely: so far, just 225-bps of Selic hikes have reached the economy; 500-bps are yet to come until 2022 year-end and at least more 350-bps in 1H23
- The inflation peak (YoY) should have been in April 2022

IPCA forecast



Sources: IBGE, BCB, Santander

Monetary policy lag: date of expected impact of each Selic hike done so far and likely effect on IPCA



*BCB's models consider 4 to 6 quarters of monetary policy lag, here we use 4 quarters (12 months).
**Impact on IPCA estimated just by cumulating the BCB's model rule-of-thumb of +100 bps Selic = -33 bps IPCA YoY.

Sources: BCB, Santander

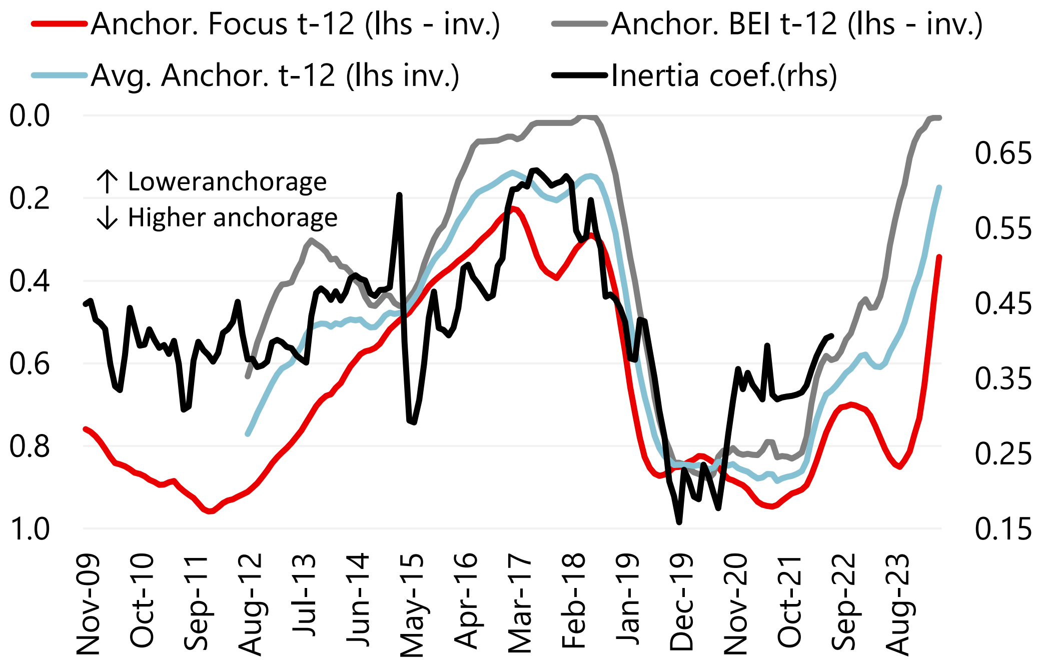
Main Risks: inertia and fiscal outlook

04

With expectations detached from the target, inertia gains steam

- The unanchoring of inflation expectations makes the price-setting process more based on past inflation, rising inertia
- We see inertia is picking up with the rise of domestic risk, making inflation stickier and turning it in a more self-fulfilling process

Inertia seems to be picking up on the back of lower expectations anchoring

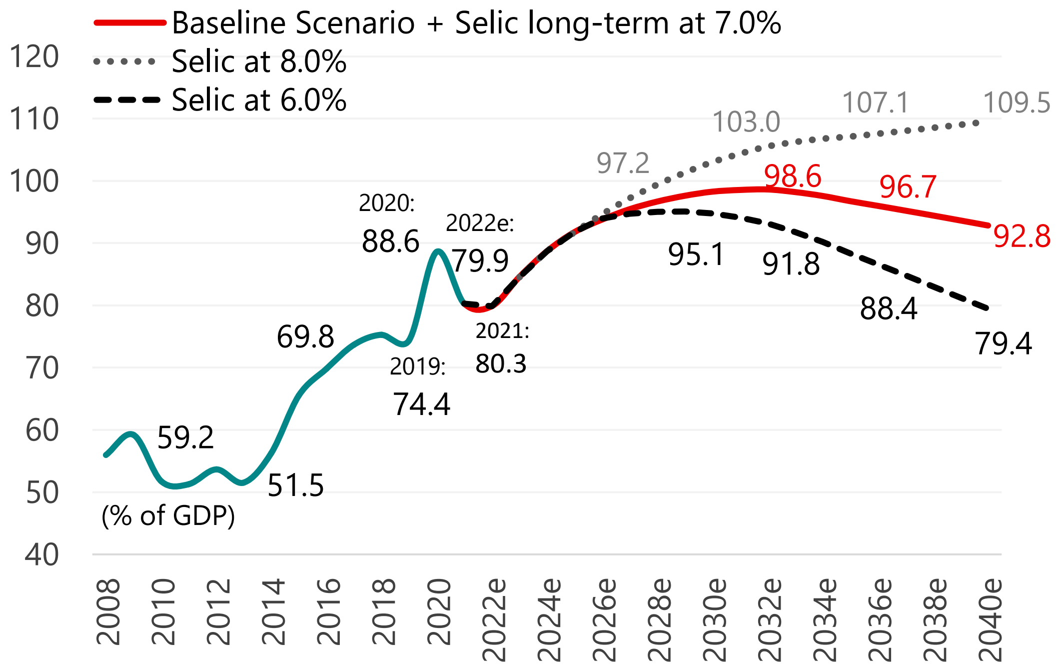


Sources: Santander

Uncertainty regarding fiscal outlook

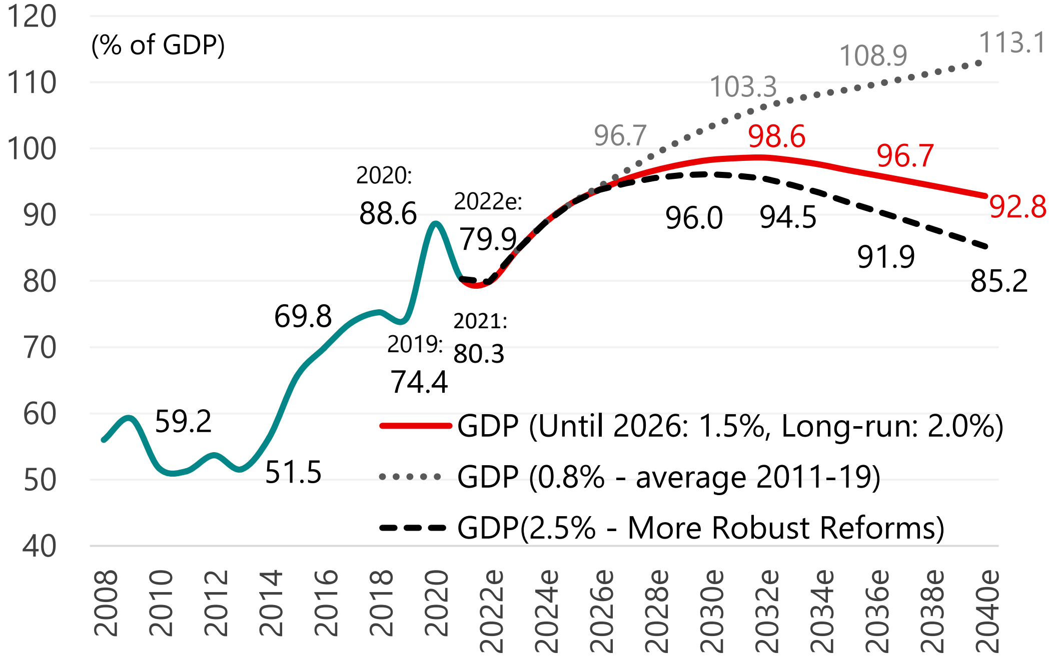
- Small changes in estimates for potential output and/or neutral interest rates leads to challenging outlooks for the debt-to-GDP ratio
- With uncertainties regarding the fiscal outlook, inflation expectations could remain detached from the target

Government Debt – Simulations for Selic Rate Hypotheses



Sources: BCB, Santander

Government Debt– Simulating for Trend GDP Hypotheses



Sources: BCB, Santander.

Notes: Debt issuances: we added a spread of + 1.0 pp in addition to the Selic rate in the models.

PEC Emergencial: Funds (+BRL150 billion for liquidity cushion in 2021 + BRL30 billion in 2022)

2022 GDP Deflator: 10% | GDP: 1.9% | Selic Rate: 14.25%

2023-40: GDP deflator: 3.9%, which is Inflation target + 0.9% (close to the average difference of the last decade between IPCA and GDP deflator)

Thank you.

Our purpose is to help people and businesses prosper.

Our culture is based on believing that everything we do should be:

Simple Personal Fair

Santander

Brazil Macroeconomic Research Team

Ana Paula Vescovi
Chief Economist
anavescovi@santander.com.br
+55 (11) 3553-8567

Mauricio Oreng
Head of Research & Strategy
mauricio.oreng@santander.com.br
+55 (11) 3553-5404

Jankiel Santos
Economist – External Sector
jankiel.santos@santander.com.br
+55 (11) 3012-5726

Ítalo Franca
Economist – Fiscal Policy
italo.franca@santander.com.br
+55 (11) 3553-5235

Tomas Urani
Economist – Global Economics
tomas.urani@santander.com.br
+55 (11) 3553-9520

Daniel Karp Vasquez
Economist – Inflation
daniel.karp@santander.com.br
+55 (11) 3553-9828

Lucas Maynard
Economist – Economic Activity
lucas.maynard.da.silva@santander.com.br
+55 (11) 3553-7495

Felipe Kotinda
Economist – Commodities
felipe.kotinda@santander.com.br
+55 (11) 3553-8071

Fabiana Moreira
Economist – Credit
fabiana.de.oliveira@santander.com.br
+55 (11) 3553-8071

Gilmar Lima
Economist – Modeling
gilmar.lima@santander.com.br
+55 (11) 3553-6327

Gabriel Couto
Economist – Special Projects
gabriel.couto@santander.com.br
+55 (11) 3553-8487

IMPORTANT DISCLOSURES

This report has been prepared by Santander Investment Securities Inc. ("SIS"; SIS is a subsidiary of Santander Holdings USA, Inc. which is wholly owned by Banco Santander, S.A. "Santander"), on behalf of itself and its affiliates (collectively, Grupo Santander) and is provided for information purposes only. This document must not be considered as an offer to sell or a solicitation of an offer to buy any relevant securities (i.e., securities mentioned herein or of the same issuer and/or options, warrants, or rights with respect to or interests in any such securities). Any decision by the recipient to buy or to sell should be based on publicly available information on the related security and, where appropriate, should take into account the content of the related prospectus filed with and available from the entity governing the related market and the company issuing the security. This report is issued in Spain by Santander Investment Bolsa, Sociedad de Valores, S.A. (“Santander Investment Bolsa”), and in the United Kingdom by Banco Santander, S.A., London Branch. Santander London is authorized by the Bank of Spain. This report is not being issued to private customers. SIS, Santander London and Santander Investment Bolsa are members of Grupo Santander.

ANALYST CERTIFICATION: The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed, that their recommendations reflect solely and exclusively their personal opinions, and that such opinions were prepared in an independent and autonomous manner, including as regards the institution to which they are linked, and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report, since their compensation and the compensation system applying to Grupo Santander and any of its affiliates is not pegged to the pricing of any of the securities issued by the companies evaluated in the report, or to the income arising from the businesses and financial transactions carried out by Grupo Santander and any of its affiliates: **Daniel Karp*.**

*Employed by a non-US affiliate of Santander Investment Securities Inc. and not registered/qualified as a research analyst under FINRA rules, and is not an associated person of the member firm, and, therefore, may not be subject to the FINRA Rule 2242 and Incorporated NYSE Rule 472 restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account.

The information contained herein has been compiled from sources believed to be reliable, but, although all reasonable care has been taken to ensure that the information contained herein is not untrue or misleading, we make no representation that it is accurate or complete and it should not be relied upon as such. All opinions and estimates included herein constitute our judgment as at the date of this report and are subject to change without notice.

Any U.S. recipient of this report (other than a registered broker-dealer or a bank acting in a broker-dealer capacity) that would like to effect any transaction in any security discussed herein should contact and place orders in the United States with SIS, which, without in any way limiting the foregoing, accepts responsibility (solely for purposes of and within the meaning of Rule 15a-6 under the U.S. Securities Exchange Act of 1934) for this report and its dissemination in the United States.